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No. 565

United States Department of Agriculture • Forest Service • FS 565 • July 1994

Status and Trends of Renewable Resources in the United States

The Forest and Rangelands Renewable Resources Planning Act of 1974 (RPA) requires an assessment of renewable natural resources every 10 years. The USDA Forest Service's 1993 Update of the 1989 RPA Assessment contains projections of resource use over the next several decades. The Assessment also identifies resource situations that seem to be potentially acceptable, deteriorating, or serious. This analysis provides the backdrop for the Forest Service's long-term strategic plan.

The status and trends of the Nation's resources also have assumed international importance. The United States made a commitment to ecosystem management at the United Nations Conference on Environment and Development in 1992, and set a goal of sustainable forest management by 2000 at the second Ministerial Conference on the Protection of Forests in Europe in 1993. New management goals may influence the way we assess resource conditions and trends in the future.

Highlights from the 1993 Update of the 1989 Assessment

The Political and Social Environment for Managing Renewable Resources Is Changing

- Timber volume offered for sale from national forests is projected to remain stable at 0.9 billion cubic feet through 2000 and then to increase slowly to 1.1 billion cubic feet by 2040. By conrast, the 1989 RPA Assessment assumed that national forest timber offered would increase to 2.7 billion cubic feet by 2040.

- There have been improvements in water quality, in part because of adoption of best management practices. Overall, adoption of best management practices is generally high, with at least 40 States monitoring compliance.

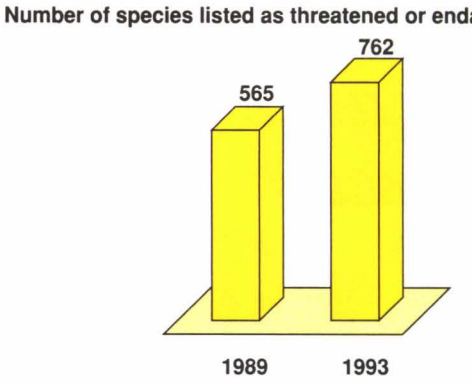
- During the 1980's, there was an increase in the number of State and local regulations affecting management of privately owned forest lands. These regulations were initiated for a variety of reasons, including protection of water quality and roads.

The Character of the Forest and Rangeland Estate Is Changing

- Forest land area stabilized between 1987 and 1992; a slight increase reversed a downward trend in forest area, dating from 1963.

- Forest and rangeland health continues to be a concern. Despite progress in restoration, much of the rangeland is in unsatisfactory condition. Nationally, the volume of mortality on timberland was up 24.3 percent from 1986 to 1991, from 4.4 billion cubic feet to 5.5 billion cubic feet—0.7 percent of the growing stock inventory. Annual mortality averaged 4.2 billion cubic feet between 1962 and 1986.

- Total forest growth on timberland declined about 2 percent between 1986 and 1991—the first decline since 1952. All of the decline was attributed to softwoods. In the South, for the first time since 1952, softwood removals exceeded growth—by 14.1 percent in 1991. For the Nation as a whole, the growth-removals ratio for softwoods was 1.09 in 1991.

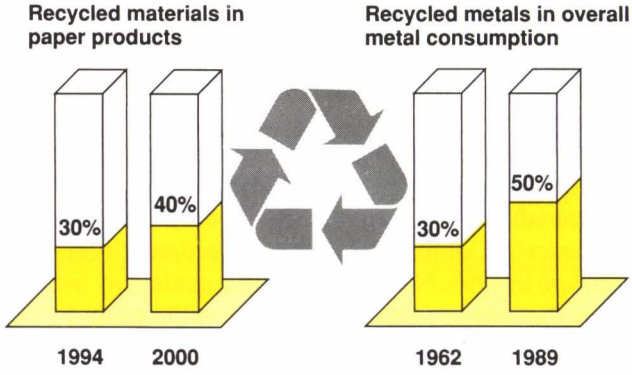


The Demand-Supply Outlook for Renewable Resources Is Changing

- If current demographic trends continue, the proportion of the population that is both white and non-Hispanic will decline from 75 percent in 1992 to 56 percent by 2040. The median age of the population will increase from 33 in 1990 to 43 in 2040, and the proportion of the population living in urban areas is expected to increase. These trends suggest that important changes in both participation rates and patterns of outdoor recreation are likely.

- The timber demand-supply outlook varies between now and 2010 and between 2010 and 2040. In the short term, stumpage prices will rise rapidly. After 2010, maturation of pine plantations in the South and increased recycling will combine to slow growth in prices.

- Exploratory and development drilling for oil and gas have decreased by more than 70 percent since the early 1980's. Trends in exploration and development since 1989 suggest increasing reliance on imported or alternate mineral resources, and imported or alternate energy resources in the future.



Potentially Serious Resource Situations

Potentially serious situations are those requiring immediate attention because they clearly present serious potential problems or because there is no known management strategy or technology for dealing with them.

Softwood Sawtimber Supply, Over the Next 20 Years, Is a Concern
Timber supplies are affected by reduced harvests on public lands, increased mortality, State and local regulations, and inadequate supplies on private lands. In the next two decades, increasing prices for stumpage may lead to increased use of substitutes such as stone and metal, with different environmental consequences.

Global Climate Change May Affect Ecological and Economic Systems
The impacts of global change on natural ecosystems could be dramatic, although considerable uncertainty exists. Changes in the concentration of greenhouse gases in the atmosphere may warm the globe; however, regional effects could vary greatly. Concurrent with these climate changes could be shifts in land cover and land use, and increase in atmospheric pollutants such as ozone and nitrous oxides.

Increases in Conflicting Demands Are Likely for Private Lands
Private lands must provide a relatively greater share of future natural resource outputs if demands are to be met. However, there is not enough information about resource interactions to evaluate the feasibility of increasing total outputs from these lands. This situation could lead to misjudgments about the Nation's output capabilities.

Reclaiming Abandoned Mines Is a Challenge
There is a considerable backlog of unreclaimed, abandoned, and inactive mines, including many on public lands. Discharges from these mines can cause extensive damage in local areas, especially if there is acid mine drainage. Because of the size of the backlog and the high cost of cleanup, this situation clearly presents serious potential problems.

The List of Threatened and Endangered Species Continues to Grow
The official list of plant and animal species categorized as threatened or endangered continues to grow. This is occurring not only because some species' populations are declining to dangerously low levels but also because we are learning more about species. Continuation of the decline of species will reduce benefits derived from wild species, greatly increase costs of management, and reduce human access where human activities are inconsistent with species recovery.

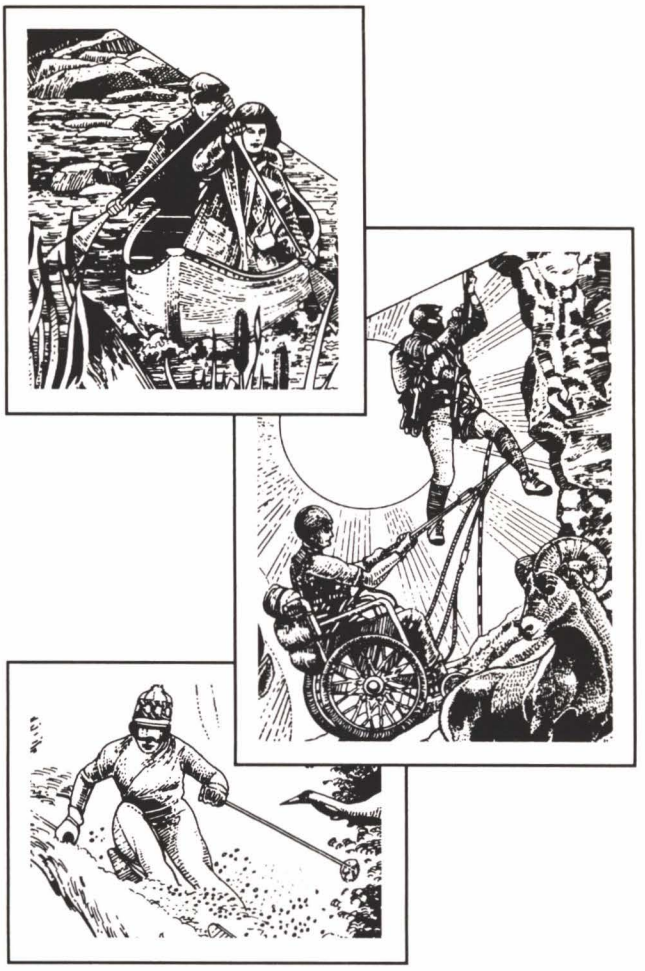
Potentially Acceptable Resource Situations

Potentially acceptable resource situations are those where resource conditions and/or projected levels of resource use can be sustained with current and expected future levels of management.

Technology For Utilization of Timber Has Increased the Options for Using Wood
Technological advances have improved the outlook for timber supplies. Examples of technological advances are structural panels made of fiber, greater use of hardwoods for pulp, and laminated products. New developments will continue to enhance resource supplies.

Big-game Habits and Populations Are Generally in Good Shape
Big-game habitats and populations on the Nation's forests and rangelands are generally well balanced and expected to remain so. These populations are expected to continue to sustain hunter demand.

Water Quality of Streams Draining Forests and Rangeland Is Generally Good
Compliance with best management practices where they exist generally results in water quality that is within accepted standards.



Range Forage Availability Is Generally Adequate
There is productive capability to meet demands for range forage for livestock and, potentially, wild herbivores.

The Magnitude of Opportunities for Outdoor Recreation Is Generally Adequate
If the public and private sectors continue to provide and expand opportunities at rates comparable to recent trends, the projected increases in supplies will meet most of the projected increases in demands. However, development of these opportunities will need to reflect the preferences of and increasingly diverse customer base.

Potentially Deteriorating Resource Situations

Potentially deteriorating resource situations occur when projected future management and technology are not expected to keep pace with demands for resource uses, and/or resource conditions will be at a deteriorated level in the future.

Forest Health Is a Growing Concern
Forest health is vital to all values associated with forests. Timber mortality increased 24.3 percent from 1986 to 1991. There are many causes of this potentially deteriorating situation. Many eastern forests are aging and becoming more susceptible to insects and diseases. Similarly, control of wildfire in the West has resulted in many aging and stagnated stands that are becoming more susceptible to insects and diseases.

Continued Loss of Biological Diversity Is a Concern
As land use intensifies, natural diversity is reduced and ecosystems are simplified. Potential impacts include reductions in the ability of biological communities to adapt to change, and forgone options for the future.

Some Regions Face a Shortage in Water Supply
Water shortages are projected for some arid and semiarid regions of the United States, where irrigation is the predominant consumptive use of water. Increasing demands in these regions will rise production costs for irrigated crops, and increase conflicts between withdrawal and instream use.

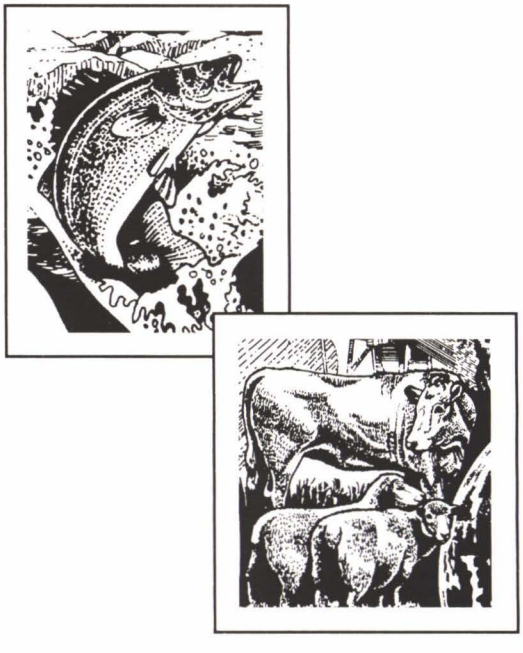
The Acreage of Wetland and Riparian Areas Is Expected to Continue to Decline
Although the rate of decline in wetland area has slowed, the loss of wetland area is expected to continue.

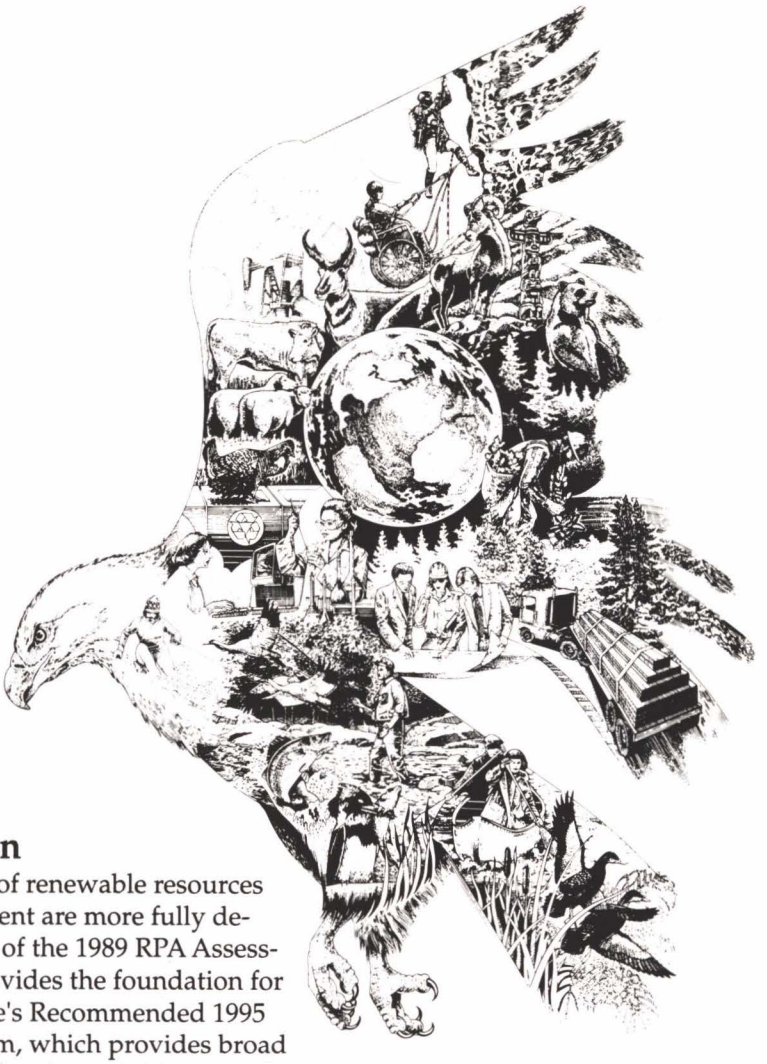
Water Quantity and Quality Affect Some Fish Habitat and Fish Populations
Recreational fishing is projected to double by 2040. Yet 80 percent of the Nation's streams have problems with water quantity or quality, fish habitat, or fish communities. These problems could reduce fishing opportunities and economic benefits.

Management of Nonindustrial Private Land Could Be Improved for Timber Production
Most nonindustrial private lands are not expected to be intensively managed. However, pressure will increase for these lands to satisfy a greater share of the Nation's timber demand. These pressures could further exacerbate the short-term timber supply situation and lead to deteriorated resource conditions, forgone benefits and income, and lost opportunities for rural development.

The Kinds of Recreation Opportunities Will Likely Change Over Time
Over time, the U.S. population is becoming more diverse in terms of race and ethnicity, is increasing in average age, and is increasingly urban. If recreational offerings do not match changing customer preferences, the result could be economic inefficiencies and lost recreation opportunities.

Despite Adequate Quantities of Range Forage, Rangeland Health Is a Concern
Despite progress, much rangeland is in unsatisfactory condition. Increased competition between livestock and wildlife could further impede range improvements.





Further information

The status and projections of renewable resources summarized in this document are more fully described in the 1993 Update of the 1989 RPA Assessment. This information provides the foundation for the Secretary of Agriculture's Recommended 1995 RPA Program. This Program, which provides broad direction for USDA Forest Service activities over the next half century, will be more fully discussed in the Recommended 1995 RPA Program. These documents will be available as they are completed from the Public Affairs Office, USDA Forest Service, PO Box 96090, Washington, DC 20090-6090.

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